

PGM Investor Day
Session 3
(presentations 4&5)
23 September 2021

Richard Stewart

Good afternoon again and welcome back to the third session today where we're looking at our South African PGM assets. I dare say it's such a cliché to refer to a phoenix, but just thinking back five years ago so many of these assets had largely been written off by the market. I think today we will show you that in the form they are today and what we have achieved with these assets, these will really underpin a leading business as we move forward with our PGM assets for a long time to come. Again I'd ask you please to consider the safe harbour statement. There are several forward looking statements in the presentation. Thank you.

So just to kick off on a high level the location of our assets and operations in southern Africa, the big base of our operations are of course the western limb in the Rustenburg area. That is where our three big operating mines sit in Rustenburg, Kroondal, and Marikana. And of course they all have surface operations. In the eastern limb we have two operations that are on care and maintenance, being the Limpopo or Baobab operation and Blue Ridge. And we have several greenfields projects as well. In the northern limb we have the Akanani project. That sits in between Ivanplats and Mogalakwena. And then we have a 50% shareholding in Mimosa that is operated independently in Zimbabwe, so a good spread across southern Africa.

I think critically, and this is really the slide, I indicated to you when we started our last presentation that when we got into PGMs we were asked why. And there were three answers to that. One was understanding the PGM markets. One was that we were comfortable with understanding PGM mining insofar as it was narrow tabular ore bodies, very similar to where we had achieved some success in our gold business by applying new operating model to those mines. But the third aspect was we recognised the opportunity for consolidation in PGMs. Many of our operating team had been through the years of consolidation in the gold industry where quite honestly without consolidation it would have been questionable whether or not that industry would have survived. Putting operations, putting companies together does provide the opportunity to cut costs, and that enhances the sustainability of the operations. And that was fundamental to our entry into PGMs.

And when you look at the slide in front of us what we see is a set of assets where five years ago we would have been looking at three independent companies. We had Kroondal or the Aquarius company, the Kroondal operations. Contiguous to that was the Rustenburg Platinum Mines owned by Anglo Platinum, and adjacent to that the Marikana operations owned by Lonmin. So effectively what we had on this slide were three companies. That means three management teams, three sets of overhead costs, three different ways of operating, three sets of surface infrastructure, three completely different approaches. But when we look at this slide what we have is one ore body. Technically two in terms of the UG2 and merensky, but practically one continuous 60km ore body. And the way to optimise value through that is by treating it, planning it, mining it as one ore body. And by being able to put these together we have been able to demonstrate the value of that quite successfully. Thank you.

So the best way to demonstrate this is through the synergies that we have already achieved. At our Rustenburg and Kroondal operations we achieved over R1 billion of synergies per year within the first year of integrating those two operations. Subsequently of course we have acquired the Marikana operations. And in under two years we've been able to realise almost R2 billion in synergies from the integration of those operations. I dare say that the synergies have largely been realised through the application of our operating model and the shaving of

overhead costs and the operating structures, and that there is still significant value to come from the optimisation of mine planning by dropping mine boundaries as well as sharing surface infrastructure including depositional capacity. That is something we are continuing to work on and I think will still bring a lot of value in the years to come in the not so distant future.

I think the other important point to make is that so often the concept of synergies is seen just with job cuts. However, the realisation of these synergies ultimately resulted in the preservation of over 12,500 jobs at our Rustenburg operations that would have been lost had this not been realised. At Marikana to date we have already managed to preserve just under 3,000 jobs that would have been lost had these synergies not been realised. So, in total that's 15,000 jobs and almost 150,000 lives and livelihoods which have been impacted through the successful integration of these operations. Of course as we know we have experienced a windfall in terms of PGM prices. But I dare say even without that increase in the prices the realisation of these synergies would have moved all of these operations from the red back into the black even if prices had not moved. And that was the value of the strategy we undertook.

Particularly pleasing has been the integration of Marikana into the company. Over the last 24 months we have managed to realise a 12% nominal operating unit cost achievement. In real terms that is more than 20% that we have managed to reduce our unit operating costs by. And that is with a 14% decrease in total production output. Essentially this has been a process of streamlining operating models, of removing unprofitable ounces, of focussing production in areas where it counts the most, getting efficient and overall integrating this into our broader business. This has been a real success story of how integration and realisation of synergies with a focus on your core operating model can make a significant change to the sustainability of an overall operation, and one we are very pleased to have in our stable.

Of course what this has meant to the company as a whole is that where we started off very much on the right hand side of the cost curve – and previously Neal would have shown you a cost curve that included capital. This is a cost curve just looking at our cash costs – and I dare say a perception that still exists today, but the realisation of these synergies and embedding that into our operating practises has meant that this is now firmly a second and third quartile business, very firmly sitting in that position. And as I mentioned, with the ongoing realisation of the longer term synergies achieved through optimal mine planning, through optimising surface infrastructure and through the benefits of the capital investment that we're making now starting to come through, I dare say that we will see ourselves continuing to move down this cost curve, but a very competitive position relative to many of our peers.

I think the second perception about these assets that we often hear and are discussed is the fact that they are short life. And I'd like to just share with you some numbers in the next few slides, and firstly just to point out the fact that we have a resource base within our Southern African PGM operations of over 350 million ounces. That compares to a reserve base of only 46 million. And critically that 350 million ounces, that vast majority of that actually sits in brownfields projects adjacent to our operations. These are not greenfields projects that require significant new capital, new permitting, new processing facilities. This is within our existing operational base and provides a significant amount of upside to the life of our operations.

I dare say that perception of the short life may well have come from ourselves. At the time that we did these acquisitions we had to be very clear that it was at a time of depressed markets, depressed PGM prices, and that trying to justify capital expenditure at that time and at those prices was very difficult. As a result we had to make sure that our acquisitions could be underpinned by shorter life of mines that did not require significant capital investment. That had to underpin our fundamental thesis of the acquisition costs we paid. As a result those are the life of mines that we shared with the market. I dare say that even looking at this slide it's still a 20 year life, but it is a declining profile. We have subsequently launched and commenced with projects at K4 and Klipfontein which adds a little bit of life, but overall a declining profile. And I guess that is what has underpinned the perception of shorter life assets.

However, if we take the resource base that we have, looking at the next slide, what we can see is that we've been able to identify just within our current operating environment some 20 projects that includes over 100 million ounces of potential reserves. 20 projects that are in our pipeline, three of which have been through a feasibility study and two have been approved for capital expenditure. But looking at the other 20 projects, barring three of those, being Akanani, Blue Ridge and Baobab, the balance are all brownfields to our existing operations.

If we take just five of these projects, on the next slide we will demonstrate that just five of these 20 provide us with the ability to sustain our current profile for more than 20 years. That is just five out of 20. We have a significant resource base off which we can sustain these operations. As I mentioned, these are brownfields projects, low risk, can leverage off existing infrastructure, have the processing capacity in place. But certainly at the time we do not have a concern with the resource base to grow, but rather strategically when is the right time to be investing in these resources for our company and for the markets that we serve. And with that I would like to hand over to Dawie van Aswegen who will take us through the details of these operations. Thank you.

Dawie van Aswegen

Thank you, Richard, and good day ladies and gentlemen. My name is Dawie van Aswegen and I'm the Executive Vice President of the South African PGM segment. Our segment employees 48,500 employees, both own employees as well as contractors. The South African PGM leadership brings about years of experience in different fields of mining, and I would like to introduce the member. Norman Nxumalo, Senior Vice President and Head of Human Resources, Roderick Mugovhani, Senior Vice President and Head of Finance, Kevin Robertson, Senior Vice President Technical & Surface Operations, Floyd Masemula, Senior Vice President and Head of our Rustenburg Operations, Bonginkosi Nqgulunga, Senior Vice President and Head of Mining for our Kroondal operations, and lastly, Johann Kleyn, Senior Vice President and Head of Mining of our Marikana operations.

The good safety record of the three integrated entities was maintained throughout the various integrations with a stable safety performance being sustained. Our core value are fully embraced and incorporated into all levels of the segment, which in turn forms the base of our group zero harm strategic framework. The South African PGM segment also ascribes to the ICMC protocols of which Sibanye-Stillwater is a member. The cultural transformation process is currently being rolled out across the South African PGM segment. The focus of this process is in support of the empowered people pillar within our zero harm strategic framework. The South

African PGM embraced the risk reduction protocols which are a set of rules designed as minimum requirements in 16 key processes across all our operations.

All risk assessments, standards, procedures and training material are being revised to ensure all protocol requirements are fully embedded. Leading indicators are increasingly being utilised within all levels of our segment. This assists us in proactively focussing on high risk activities and workplaces and is cross pollinated by lagging indicators taking agencies and behaviours into account. Our safety strategy is fully rolled out across all our operations within the segment. The South African PGM segment embarked on a full ISO 45001 integrated accreditation and certification process during 2021. Our Marikana operations and Rustenburg and Kroondal mining operations have recently been certified, and we envisage that the complete SA PGM segment will be certified within Q4 2021.

The ICMM reporting protocols were also adopted and the South African PGM is recording the total recordable injury frequency rate as a new KPI since the start of 2021. As a segment we also have achieved some significant milestones during 2021 with our PGM process operations recording 13 million fatal-free shifts, Marikana mining operations recording 3 million fatal-free shifts, and the combined SA PGM segment in excess of 4 million fatal-free shifts.

The underground ounces profile depicted in this graph is based on the 2020 life of mine reserve and resource plan and also assumes attributable 50% production from our Kroondal and Mimosa operations. The lower cost K4 and Klipfontein open pit projects which were approved in Q1 2021 are included and it maintains a consistent profile. None of the previous mentioned project studies are included in this process, which brings further upside and extension to the profile within the South African PGM segment.

The all-in sustaining cost is influenced by royalty assumptions. The reserve price for the 2020 life of mine calculations was based on the three year trailing metal prices. Included in the cost are the synergies that emanated from previous integrations of Kroondal, Rustenburg and Marikana into Sibanye-Stillwater, and that equates to about R2.8 billion. NERSA guidance was followed for future electricity tariffs and also does not include any upside potential from our strategic energy sourcing projects.

Our surface operations are long life assets which comprise of the Marikana bulk tailing treatment, the eastern tailing treatment, the Rustenburg western limb tailing retreatment plant and Platinum Mile which we acquired full ownership in July 2021 from a previous 91.7% stake. Improved methods were introduced within our surface mining areas which resulted in safer, more efficient operations. Testing of floatation technologies to recover ultra-fine chrome is currently being piloted with early indications being very successful and can contribute significantly towards our chrome production in the future. Our current surface operations are forecasted to end in 2027. However, current expansion opportunities are being assessed cross the South African PGM footprint which can extend the profile. The average operating cost is just below R110 a ton with our all-in sustaining cost benefitting from our by-product credits.

Due to the homogenous nature of our ore body and mining mix across the 60km strike distance, no material differences with regards to head grade are seen within our profile. This also brings about consistent recoveries and further changes within our operating strategy can optimise future returns, thus ensuring a stable production

profile as indicated previously. Our stay in business capital expenditure is estimated at between 8% and 12% respectively for our conventional and TMM operations' operating cost which excludes electricity cost and supports our production profile. Our stay in business capital includes initiatives that support safe operations, infrastructure upgrades, ESG compliance, TMM replacements at our Kroondal operation and Rustenburg's Bathopele mine as well as our continuous ore reserve development at our conventional operations. The total capital expenditure also includes our growth capital of R4 billion for our K4 shaft and R66 million for the establishment of our Klipfontein open pit mine that is due to commence in Q4 2021. Also to note is that the current planned capital expenditure excludes any of the unapproved projects as discussed earlier.

Our base metal output is supporting our 2020 life of mine profile and significant quantities of base metals are produced. Through the existing metallurgical process, nickel and copper as primary base metals also support the bigger Sibanye-Stillwater strategy. Our world-class concentrating facilities have got adequate capacity and flexibility to treat both underground including K4 material and surface material and is supported by suitable tailings storage facilities to embed our ESG strategy.

Through our continuous optimisation which includes design enhancements, improved monitoring and the implementation and adoption of industry best practises we have seen substantial improvement on the reliability of our furnaces. We are currently operating below the required SO₂ legal limits as prescribed by the South African legislation. Our smelter capacity is also aligned with our ore blend and supports our 2020 life of mine profile inclusive of K4 shaft. Potential creation of additional value by optimising and increasing throughput capacity at our BMR and PMR, which are currently running at 50%, exists and is aligned with future opportunities. Thank you very much, ladies and gentlemen, and I will now hand over to David Kovarsky.

David Kovarsky

Thank you Dawie. Hello everyone. I'm David Kovarsky, Senior Vice President of Chrome. Firstly, for those who don't know it, chrome is the ingredient in stainless steel that provides stainless steel with its corrosion resistant qualities. Without chrome there is no stainless steel. Sibanye-Stillwater has a total of nine standalone chrome plants and are all at the back end of our PGM concentrators. Mining costs are not allocated to the plants, and the biggest costs incurred are logistics cost to China. Despite Transnet's poor performance we are meeting our scheduled vessel bookings by trucking part of our production to Richard's Bay, which is our primary export port.

In 2021 we will receive full economic value on about 800,000 tonnes per annum. This includes an increase of 90,000 tonnes per annum after the expiry of the Samancor contract at the end of 2020. The balance of our production is subject to legacy agreements that yield below full economic value. Since their acquisition there have been good production increases at the Rustenburg and Kroondal plants.

Now a few words on the proposed chrome export tax. Together with other UG2 and primary chrome producers we are opposing a proposed tax on the export of chrome ore. The tax is designed to assist South African ferrochrome producers by increasing the input cost of the Chinese ferrochrome producers. The South African chrome industry employs more people than the South African ferrochrome industry, 10,800 people or 70,000 direct and indirect jobs versus 6,900 jobs in the South African ferrochrome industry. Based on detailed economic research we are of the strong opinion that tax will result in a net loss of jobs and South Africa will be worse off.

The only way to ensure the viability of South African ferrochrome producers is to lower their cost of electricity that has increased by 500% since 2008. South Africa's electricity cost is far higher than China and higher than India and Kazakhstan who are South Africa's other ferrochrome competitors. Lastly, chrome is well positioned to add meaningful value to our PGM business, and we continue to strive for greater operational efficiencies that we will achieve. I now hand over to Roderick. Thank you.

Roderick Mugovhani

Thanks David. My name is Roderick Mugovhani, the SVP Finance for the SA PGM segment. I am responsible for the finance at the segment level. Looking at a slide on the finances side the first slide shows basically the SA PGM operating cost breakdown, how cost has been broken down. The total breakdown in operating cost for the SA PGM consists of labour cost, contractor costs, utilities, stores and consumables, sundries, which is actually including the rehab cost, power charges at the Rustenburg operations and overheads. However, it is actually excluding the third party purchases at the Marikana operations.

And if you look at the pie chart there, 50% of the operating cost is made up of labour cost and contractors, which is largely driven by the wage agreements. Stores and material costs constitute 25% of the operating costs. And that includes normal consumables, and TMM maintenance costs, and the [unclear] cost that is related to the plant costs, and the explosives, underground support and chemicals to mention a few. And all these costs are actually as we speak above the inflation parameters as you know they have gone up year on year.

Utilities in the segment constitute 9% of the total basket of operating cost and it is mainly derived from the increases as guided by NERSA. This year the average increase year on year was 12% as per the guideline, which is 7% above the inflation parameter. The overhead cost for the segment constitutes 5% of the total operating cost. And it actually consists of the group charges and the on mine charges inside the operations. Bear in mind that the segment carries 68% of the group charge as a whole. We do have some projects that are within our segment that we are running to actually reduce costs, like for instance the fit for growth project which is in line with our procurement of contractors reduction of spend. We targeted around R800 million for the group and our portion for the segment is basically sitting at R450 million. So that is the fit for growth initiative that we are actually running there. And there are other footprint reduction projects that are actually getting done at the segment under the leadership of Ralph, our VP Engineering.

If I go basically to the breakdown of costs in line with our operations, you could see that in the operations as we have got it there Rustenburg operations are semi-mechanised and they have got actually the conventional portion, as compared to Marikana which is fully conventional. Marikana has got a downstream processing plant. Kroondal is 100% mechanised. Having said that, Marikana being a conventional operation will reflect higher labour and consumables at 43% and 28% respectively mainly due to the downstream processing plants for smelters BMR and PMR.

You will notice that in Rustenburg operations we do have 11% tolling charges which are associated with the Anglo offtake agreement for smelting and refining which is also part of the cost that Rustenburg operation actually carries. Kroondal operation being a mechanised operation are quite efficient with less employees, on

average around 5,200 employees producing 113 tons per employee comparable to conventional operations producing at around 41 tonnes per employee. Hence the operations in Kroondal are reflecting a lower percentage of labour cost as compared to other operations on the conventional side. If you look at the pie chart you will actually notice that 4% of the operating cost in the segment is associated with the running expense of chrome plants and the transportation of chrome from the mine to market.

And then the next slide shows basically the breakdown between the fixed and variable costs. From a segment point of view you could see that the split is 55% fixed on the costs and 45% variable. However, we should look at the mechanised shafts that are carrying a lower percentage than the conventional shafts. You will recall that the underground conventional shafts have extensive infrastructure to maintain, hence fixed costs are actually higher than the mechanised. The Kroondal mechanised operations are less expensive by nature as comparable to conventional due to lower intensive labour costs and contractor costs alike.

The fixed cost mainly consists of labour costs, electricity and overheads and contractors, which is basically across the operations in line with all the operations' cost base. However, the variable costs are linked to production output such as stores, incentives and overtime shifts. And that in a nutshell gives us more flexibility of running these assets, as in we have got mechanised operations with lower costs and the conventional being the high intensive labour. And the flexibility actually starts to kick in.

So looking at the next slide, it actually gives you an indication of the definition of our all-in sustaining cost Rand per ounce. In this case I will be excluding the third party purchases at Marikana. Looking at the definition itself which was developed by the World Gold Council and generally adopted by the industry on the gold sector to ensure the consistency and comparable reporting of costs. Therefore the segment as the SA PGM has also adopted such reporting standards as best practise.

When you look at the graph as presented you will see that included in the calculation of the all-in sustaining costs is the credits derived from the sale of by-products such as nickel, copper, iridium and ruthenium which is linked to the average market prices. Royalty if you look at the graph was basically significant and had a very significant impact in the all-in sustaining cost. And it is actually deemed as an uncontrollable cost as it is driven by the market prices as well.

If you look at the graph, going to the end of the graph, the all-in sustaining cost for H1 you could see that in H1 the segment reported just below R17,000 per ounce as the cost that has been reported. That is actually out there in the market. If we exclude the third party purchases Marikana was sitting at R17,700 per 4E ounce. And then Rustenburg operations sitting at R18,000 per 4E ounce and Kroondal actually sitting at R12,000 per 4E ounce. That is how the definition of the all-in cost has been structured and we have been utilising it consistently for years.

And then going to the value that the by-products bring to our calculations of costs, over a period of five years if you look at the graph we have seen a significant growth in prices of the by-product metals. You could actually see that iridium increased by actually 731% over the particular period. Ruthenium increased 1680% for that particular period. And nickel actually increased by 187% and copper increased by 198%. And this significant growth in the by-products results in the by-product credit improving from R815 per ounce in 2016 to R4,100 per

ounce during half year of 2021. So that is actually quite significant if you look at the numbers. You will notice that this is an indication that the monetary value in the by-products is offsetting our cost profile.

In a graph you can see also the positive impact of the by-products on the bar graphs. This is an indication that going forward we have got an advantage as the world is moving to the battery and electrical vehicles that the demand for our by-products is actually expected to increase, thereby which will improve the value of the by-product credits going forward. So that is positive on our side as a segment going into the future. Okay, now I can hand over to Ralph to continue with the presentation. Thank you.

Ralph Lombard

Thank you Roderick. Hi everyone. I'm Ralph Lombard, Senior Vice President Projects. I'm going to take you through two of our company's significant projects for PGMs. K4, which is an unrivalled PGM brownfields project, will target both merensky and UG2 reefs. We say it's unrivalled because the bulk of the infrastructure is already in place. This includes functional vertical shafts, a functional 130 kiloton concentrator, surface infrastructure which includes offices, change houses, grout plants and refrigeration plant and many more. Underground shaft stations and cross cuts are in place as well as shaft bottom development. You must also note that infrastructure development already started in some of these levels. In terms of the project I'm glad to say that the project team and the EPCM are on board.

Infrastructure and mining early development already commenced and this will be a major focus over the next nine months. It's also important to note that we already have an operational management team in place, which will not only assist the project but will also ensure a smooth transition into the mining activities which will already start as early as Q2 2022. Most of the designs are on track to be finalised and with quite a large focus on ESG friendly solutions. With the 50 year life it is clear that K4 will play a significant role in the region by ensuring sustainability for the Marikana operations. It will also play a significant role in the local economy by creating close to 4,400 jobs and also creating opportunities for local procurement, SMME development and skills transfer.

With the 50 year life K4 is a top tier one project with a very low capital intensity of only around R350 per 4E ounce. The bulk of the R4 billion project capital will be spent over the next three years, and that would be spent on ensuring the completion of the surface infrastructure, completion and modification of the shafts and conveyances, as well as the infrastructure development that will ensure commercial production. K4 should reach steady state production by 2030 by producing around 250,000 ounces over a life of at least 33 years and producing at a very low operating cost of only around R16,000 per 4E ounce. In total 11.5 million ounces will be mined over the 50 year life. With the commodity price and exchange rate assumptions shown here, which equates to just about R24,000 above 4E basket, a six year payback is expected. This ensures superior return on investment of R3 billion net present value and internal rate of return of 33%.

So if I move on to the next project, which is significant, albeit far smaller, is the Klipfontein shallow open pit PGM project. This is a joint venture with Anglo American under the current pool and share arrangement. UG2 will be mined up to a depth of around 45 metres. I'm glad to say that the Section 102 approval was received by the DMRE so the project is now ready for execution. The R66 million project capital will ensure that 37,000 4E ounces per annum will be produced from 2022 until 2024 at an average operating cost of just above R8,700 per 4E

ounce. A total of just above 118,000 4E ounces will be produced. This will result in a net present value of R740 million and a very good internal rate of return of 70%.

This project will also contribute to the regional and economic benefits by creating 174 jobs. The contractor will source labour from the local communities. We will also create procurement and SMME development opportunities. Rehabilitation agricultural farm status will happen at the end of the project. It must be noted that rehabilitation will happen concurrently with mining, which means by the time the mining is completed 80% of the rehabilitation already would have been completed. Thank you. With this I hand over to Jevon and the rest of the sustainability team.

Jevon Martin

Thanks very much, Ralph. My name is Jevon Martin and I'm responsible for energy and decarbonisation within the group. It gives me great pleasure today to deep dive into our energy and decarbonisation strategy for our SA PGM operations. The SA PGM operations account for 39% of our group energy demand, and due to their infrastructure and extensive conventional mining methods electricity is the predominant form of electricity and as a result creates a very unique emissions profile where 97% of the emissions stem from Eskom coal fired and diesel fired electricity. It is anticipated that this emission profile will decline over time in line with our PGM production profile as well as when the renewable energy increases in terms of the national energy mix. We however have a number of active decarbonisations currently underway.

Similarly to our South African gold operations we have advanced energy management practises being implemented within these operations which last year resulted in 60,000 tonnes of greenhouse gas emissions being avoided, primarily through the deployment of digital twins as well as uniquely developing an energy culture. Due to the emissions profile one of the strongest levers that we can pull is the deployment of renewable energy. I will talk to our solar PV project shortly, but I previously mentioned our wind energy projects which will enable rapid decarbonisation of these particular operations. In terms of the remnant diesel that is used at our mechanised operations, we are exploring the use of battery electric vehicles as well as setting Scope 3 targets for those emissions that are incurred through the third party processing of our concentrate.

Electricity will continue to remain the focus at these operations given its predominance in terms of emissions. If I talk quickly to our solar PV project, given our expanded footprint in the North West we undertook initially a pre-feasibility study and then later a feasibility study into embedded solar PV generation directly into our operations. The studies confirmed the strong rationale around deploying these projects given their decarbonisation and commercial potential. The long life assets as well as the associated demand can support easily up to 175 MW of solar PV across three specific sites, an 80 MW project located within the RPM, specifically between Bathopele mine and the UG2 retrofit concentrator, a 65 MW project that will be collocated next to the Karee complex that will supply the K4 shaft, the K4 concentrator, the K3 shaft as well as the K3 concentrator, and lastly on the eastern portion of our footprint a 30 MW project that will direct inject power into the Rowland smelter.

The assessment included extensive land study that confirmed that we have available Sibanye land that can accommodate solar PV. And there were no critical flaws in terms of engineering, environmental, geotechnical, regulatory, social or security aspects. We also confirmed that we have adequate substations that will allow the

solar PV projects to be directly connected into our operations. The total cost of the project will be in the order of R2.5 billion to R2.8 billion. That will be funded through third party PPA structures. This results in us having minimum capital outlay, access to renewable energy at a 30% to 50% discount to grid supplied electricity from day one.

This generates a significant NPV for these operations as well as has a significant decarbonisation potential. In anticipation of pending carbon taxes for Scope 2 it will also offset these liabilities. We are currently targeting financial close in the first half of 2023 with commercial operation in early 2025. The project schedule is currently being driven by the permitting activities of which the environmental impact assessment, the rezoning and the subdivision of land have already been initiated. I will now hand over to Grant who will take us through the balance of our environmental considerations. Thank you.

Grant Stuart

Thanks Jevon. Good afternoon, and pleased to be with you all. I'm Grant Stuart and SVP for Environment as part of our sustainability and ESG focus. Our closure vision for the SA PGM operations is an agreed safe, stable, regional post-closure mining solution that will deliver clean water to local and regional catchments, enabling sustainable post-mining economies and ecosystems. Critical to the success is going to be meaningful stakeholder engagement and collaboration. We are guided by our ESG policy where we make specific reference to the following. Design and implement a closure plan that incorporates concurrent rehabilitation and post mining land uses in conversation with local communities and government, and a group position paper on post-mining socioeconomic sustainability and closure which sets out our approach towards planning and execution of an integrated and responsible mine closure where latent and residual liabilities are well defined and provided for.

Integral to aligning to the closure vision over the remaining life of the mine is concurrent rehabilitation. As of 2020 we own some 17,000 hectares of land around our SA PGM operations. We have evolved a footprint reduction programme as part of our concurrent rehabilitation drive to sustainably close mining impacts, a vital component of reducing our closure liability. As part of this programme a simple example are the before and after pictures that you can see on the right-hand side of your screen where we have successfully concluded the demolition of the Klipfontein concentrator with rehabilitation of the service area reducing our closure liability by some R40 million. This is a good example how our collaboration with local communities can achieve a desired outcome with local skills development and deployment a peripheral benefit.

Moreover, we are also looking to leverage our equity interest in DRDGOLD and extend the successful tailings retreatment and reclamation and environmental clean-up into our SA PGM operations. Another opportunity that we have well advanced in consultation with the regulator is the opportunity to backfill old pits with tailings. The Marikana pits and West Wits pit currently have a liability of some R1 billion. Deposition into these pits will not only see the R1 billion closure liability reduce substantially, but will provide an end land use that does not pose a risk to environment or community. And international and independent third party is commissioned on an annual basis to align our closure plans and rehabilitation obligations with the requirements of GN R. 1147 for submission to the Department of Mineral Energy and Resources.

A closure report per operation is completed and includes the scheduled and unscheduled closure costs for each operation at site level. This report is used for external auditing purpose and eventually for submission to the DMRE. We have set aside some R4.7 billion which is the unscheduled closure liability for the management, remediation and rehabilitation of the environmental impact on our SA PGM footprint. These are independently reviewed and adjusted annually as mining occurs and as mining plans develop.

The unscheduled closure liability of Marikana, with a life of some 20 years plus, is some R1.9 billion with Kroondal and SRPM R1.4 billion and R1.2 billion respectively. The unscheduled liability is funded through a combination of cash in trust and guarantees, and the cash contributions are made annually to a dedicated rehabilitation trust over the planned life of the operations. Any shortfalls in closure provisions at the end of the period are funded by guarantees. These provisions serve to assure to DMRE that the mine will be able to fund the rehabilitation cost in accordance with our closure plan.

Since 1965 there have been some 120 reported failures of tailings facilities with some 2,300 fatalities and significant environmental damage. Substantial advancements have however been made in the past decade in technologies and engineering practises in design, assessment and management of tailings storage facilities. We are very cognisant of our obligations to ensure that we mine responsibly and minimise our harm to the planet. This is very evident when it comes to the way we manage tailings, and hence our very strong group tailings governance framework.

As a member of the ICMM we are committed to implementing a group tailings management system in alignment with the group industry standard for tailings management. The global standard stipulates increased accountability to owners with an elevation of accountability to the board and executive committee. Further, we have committed to comply with all the requirements of the global standard by 5th August 2023. The SA PGM operations have 23 tailings storage facilities of which 21 are classified with having a high hazard rate in accordance with SANS 10286. 24% of these facilities are dormant, two of which are classified as having a medium hazard. We intend to be fully compliant by 2023 to all TSFs regardless of the consequence classification.

We are in the process of confirming the classification of all facilities in alignment with the global standard consequence classification matrix. We have added a tailings module to our Pivot platform, which is a management reporting tool, and any non-conformances against the group tailings management standard or global industry standard conformance road map are identified, tracked, managed and closed out. The establishment of the SA PGM tailings working group has raised risk awareness and created greater TSF management understanding in the operating entities. A good working relationship has encouraged operating entities to escalate tailings issues to the VP Tailings Engineering for resolution. Outstanding matters are now receiving a higher level of attention, reducing overall tailings risk.

During the balance of this year we will be rolling out an internationally recognised best practise tailings management technology currently used by four members of the ICMM including Rio Tinto. This technology will enable improved and proactive risk identification, management and mitigation across the PGM footprint. The module will include deformation monitoring and side slopes by satellite. All data points are georeferenced, allowing for integration of environmental and social data, providing additional business opportunities for

managing and reporting against our ESG requirements. Implementation of this module will assist in closing several gaps with the GISTM requirements.

Our Marikana, Rustenburg and Kroondal operations are located in an area which is recognised as a water constrained area. The operations are dependent on Rand Water Board, the Rustenburg local municipality and Rustenburg Water Services for approximately 65% of their total water demand. With the growing demand for water in the region due to a growing population, a backlog of water augmentation and water security schemes by local authorities, and unpredictable weather patterns, it is important more so than ever before to design and implement measures to improve the water security for production purposes. Through effective implementation of such measures we will reduce our impact on surrounding water resources and improve water security in the region over the longer term for benefit of our operations, those who depend on our operations as well as the surrounding communities.

Securing and protecting local water resources will also serve the region post the closure of the operations. We are therefore focussed on a water security strategy to secure and sustain safe operations. There are a number of focus areas that drive our security strategy, one of which is the effective and smart continuous monitoring. The flow technology that we have decentralised across all of our sites enables a defined and consistent approach to the site level accounting which is fundamental to adequately capturing a diverse range of operational contexts, water practises, opportunities and management responses which occur across our operational footprint.

This technology is the foundation for accurate and consistent external reporting for the minimum commitments. Since the implementation of this technology in 2016 we've expanded the system to include more than 400 monitoring sites across our operations. Through the successful implementation of this strategy we have managed to reduce our reliance on the integrated Vaal River system by some 18% in 2020 when compared to 2018.

Other demonstrable progress in water security strategies include the integrated Marikana water balance across our SA PGM footprint which has introduced a great deal of flexibility and enabled the water to be transferred from the water rich areas during the wet season to storage areas and areas known to be water stressed. The Pandora pipeline scheme has enabled the Marikana operations to transport up to 6 mega litres of water per day from the eastern wet operations to the Karee operations. The water harvesting has allowed us to access more than 1,000 mega litres of capacity through the utilisation of old open cast pits and cleaning up process water dams. This 1,000 mega litres is able to sustain the SA PGM operations for more than two weeks without any other potable water supply.

A focus on tailings and density management and control with the target of 1.6 tonnes per cube by 2025 is an optimal tailings density management that we are aiming to achieve. We recognise the fact that more than 50% of the water lost under a tailings facility due to seepage, evaporation and initial interstitial lockup is a critical success factor to our water security strategy. As part of our drive to water security and water independence and responsible water management we have also climbed on board and have a clear target and support responsible disclosure, which is why we have also reported and joined the water reporting to the CDP. As we all know, meaningful change can only happen through collaboration. Thabisile, over to you.

Thabisile Phumo

Thank you Grant. My name is Thabisile Phumo. I'm Head of Stakeholders Relations and Community Development. As a company we are making real changes to transform and create value for all our stakeholders. Reflecting on empowerment structures, at Marikana we have had to restructure the empowerment structure because the previous one was non-beneficial and had substantial debt burden. The new sustainable BEE financing structure provides for immediate access to distributable cash flow and ongoing transfer of tangible value to the beneficiaries. This enables us to secure the social license to operate for this operation.

We recognise the need for social relief, and to that extent we have unlocked it via our BEE structures and employee profit share scheme. We are pleased to advise that we have paid R145 million to the Rustenburg BEE structure and R64 million to employees via the profit share scheme since the acquisition. In Marikana we've paid R91 million to the empowerment structures and R521 million to Marikana employees via the ESOP for the 2020 year. It is important that we continue to invest in these operations so that we can increase their life of mine and also secure jobs. To that extent at steady state K4 and Klipfontein will employ 4,500 people at steady state. We continue to contribute to the fiscus and social imperatives by paying royalties and taxes. And in the first half of 2021 we have paid R10.3 billion. We continue to deliver on social land labour plan programmes for each of the mining licenses.

Our employee volunteering scheme where we partner with our employees to unlock value ensures that we continue to create value in areas where they live. We also continue to sponsor universities, bursaries and provide for learnerships for the youth in all our operating environments. Across the PGM segment we have contributed to close to 80 social and labour plan programmes in the areas of skills development, infrastructure development and income generating projects.

In the health sector we have partnered with the North West Province Department of Health to improve health services, and in this case we are involved in the construction of clinics, forensic mortuaries, and we have also contributed mobile clinics so that they can access areas that are far from social services. In the areas of education we have partnered with the North West Basic Department of Education where we have rolled out early childhood development programmes comprising the upgrade of facilities, teacher training, learning infrastructure and material. We have constructed new schools and continue to be involved in the extensions of several schools so that we can improve the quality of learning.

The key issue that everyone is engaging around in Marikana is what we have launched earlier in the year, which is called the Marikana Renewal. The Marikana Renewal focussing on honouring, engaging and creating a new reality in Marikana in partnership with stakeholders so that we can ensure that we honour the legacy of Marikana and facilitate healing for families and the injured. We pursue justice and restitution for the affected and impacted. It became evident when working on this aspect that you cannot do healing and restitution without looking at issues of social redress.

To that extent we are working together with various partners, government included, to ensure social redress through the delivery of social infrastructure that benefits communities. We are one of the contributors to the district development model and continue to promote together with other stakeholders the development of

alternative economic streams in the region that can continue to create jobs during and post the life of mine of our operations. And that is how as a company we are creating superior value for stakeholders in the North West environment. Over to you, Richard.

Richard Stewart

Thank you very much, Thabisile, and also to Dawie and the rest of the team for those extensive presentations and deep dive into our operations. I think to bring it all to a conclusion, certainly it is not my intention to repeat a lot of what has been said, but just to zoom through some of the key points that hopefully you have been left with from the discussions today. These are quality world-class assets. They are contiguous in nature which allows us to achieve the synergies that we set out to achieve and has reset the cost base of these operations. They are competitive second and third cost quartile operations which has set them up well for sustainability.

These are long life assets. Although we commenced the life of them in a downturn period of the PGM markets where it was difficult to justify capital, they have the resource base to sustain not only current production but the production that the market requires for an extended period of time. And we are developing the strategies as to how best and most responsibly to realise that value and long life for the value of all of our stakeholders.

We have a very competitive position in terms of the processing capacity that we have. We have spare capacity in our refining facilities. That certainly provides optionality not only to assist third parties but also in terms of our own growth plans. Many of our capital projects do not require extensive capital to be spent on processing. As we mentioned, our strategy has been very much about integrating our business with our customers, with our supply chains. Likewise, as you have heard today we very much focus on integrating our business in the surrounding communities in which we operate and the environment within which our mines are created, ultimately with an objective of leaving a legacy when we leave one day that is better than when we started.

I think we've demonstrated that we managed to very successfully execute our entry into PGMs, to execute our growth strategy. We have already created significant value for our stakeholders through these operations and look forward to continuing to do so for a further 20 years to come. And with that, once again thank you to the team for the presentations and we would look forward to taking any questions that you may have. Thank you.

James Wellsted

Thanks, Richard, Dawie and Roderick. Thanks for that. We do have a number of questions. We've got fairly limited time, so will try and get through as many in the time available as I can. First of all for Richard I'll put two together here. There is a question from Dominic O'Kane about our reserve profile as Rustenburg and Marikana roughly flat under 2025. The question is that given the current reserve price being below spot at the moment is there elasticity to increase output at Marikana and Rustenburg without significant new growth capital? And then in the same sort of vein from Chris Nicholson, do any of the potential projects on slide 12 meet your hurdle rates under the long-term price assumptions set?

Richard Stewart

Thanks James. Thanks Dom and Chris. Listen, I think in terms of the elasticity question I think importantly where our underground operations are at the moment those are fairly stable grade profiles and really changes in prices do not significantly impact the ability to increase output without capital growth. Of course we do have extensions to those that don't require significant growth, but it's not so much a price question. On our surface operations which are more sensitive, increases in prices do allow us to optimise and tweak our surface output a little bit. In terms of the capital strategy with the projects, which is perhaps to some extent where Chris is going, the short answer is yes, most of those projects meet our hurdle rates at our own reserves prices and of course at spot prices very comfortably.

But as I mentioned in the conclusion, for us where to spend capital, the rate at which we spend capital, the projects that we invest in I think is very much driven by our long-term view of the markets and what the markets are going to require including the metal mixes that are going to be required. So while I demonstrated that we've got plenty of projects to be able to maintain our current profile if that was what we wanted to do, and arguably grow it is that's what we wanted to do, the actual decision to invest is not just about meeting a hurdle rate but really about strategically considering what we think the markets are going to need for the next five, ten and 15 years out. And ultimately that will drive our capital allocation framework. Thanks.

James Wellsted

Thanks Richard. The next two questions I will ask Neal to answer if he could. First from Wade Napier. With the consolidated SA industry several of your peers have similar capital light brownfields optionality. Paybacks are typically four to seven years. With no one carrying any debt on their balance sheet, where is the disincentive for producers not to greenlight one too many of these projects? And then in a similar vein, when do you start approving new projects or spending capital to keep the production profile roughly flat to the end of the decade. Neal, could you respond to those please?

Neal Froneman

Yes, certainly. Wade, I think Richard basically provided the answer. I think those producers that are responsible will remember the oversupply situation of just a few years back. And it's not smart to produce more just to be a bigger producer. That's point number one. I think when we talk hurdle rates, that's one thing. Making an investment in a country that is not going in the right direction requires another level of decision making. And we've said it often and we've said it publicly as well that we've got many projects that under normal circumstances would be good projects, provide good returns, but we cannot with hand on heart commit to those projects under the current conditions in South Africa. We need more economic reform. We need stable electricity. We are moving in that direction, and when some of those stars align there can be much more significant investment. But again the market is going to dictate how much supply we bring onto the market. If we see a shortage, we will certainly do it because we value our customers. But just to produce more to be bigger is not smart. So thanks, James. I think I answered all those questions.

James Wellsted

I think so, Neal. The second one was just about when we would approve project to keep that profile flat, but I think you've pretty much answered that. The next one is relating to Kroondal. There are two questions that I will ask Richard to respond to, the first from Nkateko at Investec. Kroondal life of mine 11 years per the slide that you presented, Richard, the reserves and resources, but the planned ounces and cost slide that Dawie showed shows essentially no output beyond 2025. Why is this? And then from Dale Munro at Metals Focus, given the industry trend of allocating capital to shallower more mechanised operations, can you talk to how you view the priority of a Kroondal life of mine extension project relative to other deeper conventional mining projects in our portfolio? Richard.

Richard Stewart

Thanks James. Thanks, Nkateko and Dale for those questions. I think just to address the graphs, what we saw in the second graph that Dawie presented was very much what our current reserve base is. That underpins our reserve base in terms of it has a cut-off because of a tail. So that's the reserve life as we have it at the moment. What you saw in the slide I presented actually was a slight tail that exists. Without modifying the operation that tail on a standalone basis would not currently be economic.

However, I dare say when we look at the Kroondal operations, the fact that they are contiguous to Rustenburg, there is still significant opportunity to realise value and extend the life of those operations by dropping the boundaries between what has classically been known as Kroondal and the Rustenburg operations. Obviously that is something we are in a partnership at the moment with Anglo. And we will continue to explore the optimal way to develop those assets going forward such that it can extend the life. And I think that goes to the heart of the point I mentioned, that we have not yet optimised the value out of these assets. And certainly with refinement around dropping boundaries and optimising infrastructure I think there is significant potential and value that can be had for all stakeholders there.

I think in terms of the question regarding the priorities of shallow surface mechanised versus underground conventional, again I think it just comes back to the same capital question that we've been debating in the last few questions. Ultimately brownfields expansions much of that doesn't require significant project capital. So they are just extensions to existing mines, and we will look at optimal ways of doing that. And anything that requires significant capital will be reviewed, as we discussed in the last questions, both around hurdle rates, market requirements, and of course as Neal mentioned, looking at the climate within which we're investing. Thanks James.

James Wellsted

Thanks Richard. The next two questions are similar from Steve Sheppard and Chris Nicholson again. Chris has been very active today. How much longer do we expect to have to make use of Amplats' smelting, converting and refining assets? Is it commercially sensible to go it alone? And then Chris' question was you say BMR and PMR are currently operating at 50% utilisation. Are you still considering cancelling the toll on Rustenburg with Amplats and processing these ounces yourselves? What other options do you have to utilise the capacity, i.e. Ivanplats recycling and other POCs? Richard.

Richard Stewart

Thanks Chris and Steve. Look, I think a lot of questions there which to be honest I'm not going to delve into in a huge amount of detail because clearly those are quite strategic questions. But what I will say is that obviously the contract that we have in terms of the toll processing with Amplats at the moment was initially set up as a ten year contract when we concluded the transaction. So that goes out until 2026 and can be extended by both parties at the time if that's what we want. Where we are at the moment is that spare capacity as I say has got significant strategic value for us. As mentioned I think we're probably one of the few parties in the industry at the moment that has got spare refining capacity especially on the base metals side, which gives us flexibility with regards to our own projects.

It gives us flexibility to assist third parties. Then of course there is obviously the flexibility by having some of our material going through two facilities. As we know there are challenges with Eskom. That is not a risk that we current face on the Rustenburg side. And having that flexibility is a big risk mitigator for us. So there are several different aspects to this question. And I think at the moment from our side it's a level of flexibility that we enjoy having and I think we'll retail for now and evaluate what the optimal route forward would be for when the contract comes to an end.

James Wellsted

Thanks Richard. The next question from Arnold. Do we have plans to reopen Baobab or Blue Ridge? I think we pretty much answered that in terms of the other projects. These would obviously fall quite far in the back of the queue. So maybe we'll let some of our peers who are looking for answers open them up at another point. But I think we've already responded to that, Arnold. Steve Sheppard, a question for Dawie. Have you evaluated your surface dumps in the Rustenburg Marikana region? If so, what is your thinking regarding their possible exploitation? Dawie.

Dawie van Aswegen

Thank you, James, and thank you Steve. I think like I mentioned in my presentation that we are busy assessing all our surface dump areas. And there is definitely opportunity for increasing output. I think further to that it also brings about two other opportunities which will show us a potential saving in terms of capex on TSF and further maximising our current surface operations where we will definitely see a reduction in terms of unit cost Rand per ton on those. So yes, there are definitely opportunities. Thank you.

James Wellsted

Thanks Dawie. The next question I think for Roderick from Arnold van Graan. How do you intend keeping operating cost and AISC flat once production starts to decline as per slide 16?

Roderick Mugovhani

Thanks Arnold. The way we have actually modelled our life of mine, Arnold, is that all those expensive shafts that we are actually going to drop will be leveraged by the less expensive shafts. The shaft that we are talking about here is Siphumelele. If you look at the life of mine they've got a shorter life of mine. And then where it drops basically the less expensive shafts actually coming in. and on top of that you will pick up that when we actually close that particular shaft, the fixed overheads, we assume that those costs have to go. The only cost which will actually be minimal is actually the head office cost where you pick up a very small percentage.

So that is a leverage between your lesser expensive shafts versus the mechanised shafts that are coming actually at a lower cost. So that is basically where you will see that your unit cost will remain flat. You would expect if the profile is the same then that unit cost will actually go up. and on the same time you will actually realise that these costs that we are showing here are exclusive of the inflation, so it is actually on real cost. So that is basically where we are on that profile. Then if you compare it with basically the surface you could see that the surface has got a different curve which is basically going the other way. That's basically what has happened on that particular one.

James Wellsted

Thanks Roderick. The next question from Chris Nicholson again is how much capex is required to meet the new sulphur dioxide emissions regulations of 1000 milligrams per N/m² by 2025? Is it in your capex profile on slide 19? Grant Stuart, could you maybe answer that one? Is Grant available, or maybe Kevin Robertson?

Grant Stuart

I'm here. Can you hear me now, James? Thanks. Of course sulphur dioxide is one of the greenhouse gasses that we as responsible miners need to fight the good global warming fight. As Dawie mentioned, we are already compliant to that local legislative limit of 1000 milligrams per cubic metre. But we've also set some internal benchmark targets that we need to do in order to sit alongside our benchmark US colleagues. The target is really to improve our SO₂ capturing and cleaning efficiency from 80% to 90% by 2027 and then to 99% by 2030. Those are the subject of a pre-feasibility which is looking to really test the logical and most cost effective outcome. The pre-feasibility will be finished by the end of the middle of next year, and then we will following a successful outcome embark on the feasibility study. Thanks James.

James Wellsted

Thanks Grant. The next question from Pearson Mururi from Afriforesight about whether K4 will be mechanised or conventional. I think from the slides that Ralph presented, Pearson, you would have seen that there will be about 4,500 jobs created. It's similar to the existing Marikana other shafts which are conventional. So it will be a conventional mine. Then from Nkateko at Investec again, can you update the capital expenditure profile for processing, infrastructure and asset reliability? Peers are increasing stay in business spend on processing infrastructure. Is SA PGM also experiencing the same capex demands? Kevin, I'm not sure if you're available to answer that one. Kevin Robertson.

Kevin Robertson

Again, yes we have. Actually our peak funding is in 2023 and this includes obviously compliance to structure in our processing environment. On the concentrating environment again it's just SIB capital. And they are at steady state and in very good nick as well. So it's just on the processing side that we have increased our capital. And as I say it peaks in 2023. Thanks.

James Wellsted

Thanks Kevin. Appreciate that. Arnold van Graan again, a question for Roderick I think. The big difference between contractor cost component at Rustenburg versus Marikana. Is this something that will normalise over time?

Roderick Mugovhani

Thanks Arnold. You would recall that in Rustenburg operations we do have a mechanised and also the conventional shafts. The mechanised sections are actually at Bathopele shafts whereby we are actually utilising AP Rock as one of our contractors that is actually maintaining our fleet at Bathopele. That's why you would pick up that the Rustenburg operations contract costs are quite higher than the rest. And that is actually quite expensive maintenance. You will recall the mechanised section when it gets to contractor costs they are actually slightly higher with less labour. So that is where the mix is. Comparable to where Marikana is sitting at the moment, the only contracts that we have got there are actually for vamping and sweeping only, which is basically normal. That's where the differences are in terms of the contract costs between the mechanised as well as the conventional shafts. But in terms of normalising it going forward it's two different sets of mining methods that the guys are actually doing there, so it couldn't be normalised because Bathopele is purely mechanised and the other one is conventional.

James Wellsted

Thanks Roderick. Just a last question then before we take a quick break was around the capex guidance in the slide. The slide shows R6 billion for 2021 versus R3.9 billion that we guided for at our results. Could we just explain the difference in the slide versus the guidance that we've given in the book?

Roderick Mugovhani

Look, on the graph that you are actually seeing there we are using a life of mine as per the original plan that we had. And that was actually including the K4 and then also the open cast original plan as we had it and a couple of the refineries and the PMR capex that we had originally on the life of mine plan. But due to delays in terms of COVID when we get to actually the year we find that some of the capex is delayed. But it is going to be spent next year. So you will pick up that a lot more has been moved to 2022 in terms of how we actually are pushing our capex. So that is basically the only differences between where we are at R6 billion down basically to R4 billion. That is basically that time delay of the projects as well. The last one is basically sitting on the ORD side as well which is basically on an expense basis at this point in time when you look at the graph.

James Wellsted

Dominic, if you want to go into a bit more detail we're happy to take it offline and go through the numbers with you as well. On that note I think let's take a quick break. We've got the last session ahead of us. So we will come back in about six minutes and then we'll start the final session of the day. Thanks very much for attending so far.

END OF TRANSCRIPT